

AMENDMENTS TO THE CLAIMS

Claims 1-96. (Canceled)

97. (Previously presented) A support comprising an array of microchips immobilized on said support, each of said microchips comprising an array of oligonucleotide probes immobilized on the surface of each of said microchips, each of said microchips being separated by a physical barrier or a hydrophobic surface from every other microchip, and each of said microchips having oligonucleotides with different sequences attached thereto at different locations.

98-156. (Canceled)

157. (Previously presented) The support of claim 97 wherein the physical barrier is a groove.

158. (Previously presented) The support of claim 97 wherein the hydrophobic surface is a hydrophobic strip.

159. (Previously presented) The support of claim 97 wherein the microchips are arranged in multiple rows and columns.

160. (Previously presented) The support of claim 97 wherein the microchips are positioned for use with multichannel pipet.

161. (Previously presented) The support of claim 97 combined as a kit with at least one component selected from: hybridization buffer, washing buffer, control DNA, a set of labeled probes, ligation enzyme, chemical ligation agent, and ligation buffer.

162. (Previously presented) The support of claim 97 wherein the microchips are arrayed in an 8 times 12 format.

163. (Previously presented) The support of claim 97 wherein there is more than 256 oligonucleotide probes per array.

164. (Previously presented) The support of claim 97 wherein the oligonucleotide probes are between about 4 and about 9 bases in length.

165. (Previously presented) The support of claim 97 wherein the oligonucleotide probes are prepared on the microchip via a light-directed oligonucleotide synthesis.

166. (Currently amended) A support comprising an array of ~~[[multiple arrays]]~~ microarrays of ~~[[immobilized]]~~ oligonucleotides, said oligonucleotides immobilized on said support, ~~[[said arrays immobilized on said support,]]~~ wherein each ~~[[array]]~~ microarray is separated by a physical barrier or a hydrophobic surface from every other ~~[[array]]~~ microarray and each ~~[[array]]~~ microarray having oligonucleotides with different sequences attached thereto.

167. (Previously presented) The support of claim 166 wherein the physical barrier is a groove.

168. (Previously presented) The support of claim 166 wherein the hydrophobic surface is a hydrophobic strip.

169. (Currently amended) The support of claim 166 wherein the ~~[[arrays]]~~ microarrays of oligonucleotides are arranged in multiple rows and columns.

170. (Currently amended) The support of claim 166 wherein the ~~[[arrays]]~~ microarrays of oligonucleotides are positioned for use with multichannel pipet.

171. (Previously presented) The support of claim 166 combined as a kit with at least one component selected from: hybridization buffer, washing buffer, control DNA, a set of labeled probes, ligation enzyme, chemical ligation agent, and ligation buffer.

172. (Currently amended) The support of claim 166 wherein the ~~[[arrays]]~~ microarrays of oligonucleotides are arrayed in an 8 times 12 format.

173. (Currently amended) The support of claim 166 wherein there is more than 256 oligonucleotides per ~~[[array]]~~ microarray.

174. (Previously presented) The support of claim 166 wherein the oligonucleotides are between about 4 and about 9 bases in length.

175. (Previously presented) The support of claim 166 wherein the oligonucleotides are prepared on the support via a light-directed oligonucleotide synthesis.

176. (Withdrawn) A method to obtain probe:nucleic acid fragment complexes comprising the step of

contacting the support of claim 97 or claim 166 with a nucleic acid fragment under condition that permit complex formation between a oligonucleotide probe on the support and the nucleic acid fragment.